

REMARKS

This responds to the Final Office Action mailed on February 3, 2009.

Claims 1, 24, 35-37, 42-43, 45, 47, 81-82, and 86-87 are amended, and claims 3-5, 9, 11-12, 15, 18, 20-21, 25-34, 60, 64, 67, 69-71, 74, 76-78, 80, 88, 90, and 92-96 are canceled; as a result, claims 1, 24, 35-39, 41-45, 47, 81-82, and 86-87 are now pending in this application.

The Nonstatutory Obviousness-Type Double Patenting Rejections

Claims 1, 3-5, 9, 11-12, 15, 20, 21, 24-39, 41-45, 60, 67, 69-70, 81, 86, 88, 90, and 92-95 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 25-50 of copending application Serial No. 11/825,304. Claims 1, 3-5, 9, 11-12, 15, 18, 20-21, 24-39, 41-45, 47, 60, 67, 69-71, 74, 76-78, 80-82, 86-88, 90, and 92-96 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 8-13, 15, 17-21, 24-45, and 60-62 of copending application Serial No. 11/786,785.

Applicant notes that none of the present application, the '304 application or '785 application has issued. Therefore, a terminal disclaimer is not required at this time. If a terminal disclaimer is allegedly required, it can be requested by the Office after a notice of allowable subject matter in one of those applications.

The 35 U.S.C. § 103 Rejections

Claims 1, 3-5, 9, 11-12, 15, 20-21, 24-39, 41-45, 60, 67, 69-70, 81, 86, 90, and 92-95 were rejected under 35 U.S.C. § 103(a) as being obvious over Sherf et al. (U.S. Patent No. 5,670,356) in view of Zolotukhin et al. (U.S. Patent No. 5,874,304), Donnelly et al. (WO 97/47358), Pan et al. (Nucl. Acids Res., 27:1094 (1999)), Cornelissen et al. (U.S. Patent No. 5,952,547), and Hey et al. (U.S. Patent No. 6,169,232). Claims 18, 47, 71, 74, 76-78, 80, 82, 87-88, and 96 were rejected under 35 U.S.C. § 103(a) as being obvious over Sherf et al. in view of Zolotukhin et al., Donnelly et al., Pan et al. Cornelissen et al., Hey et al., and further in view of Wood et al. (WO 99/14336). As these rejections may be applied to the pending claims, they are respectfully traversed.

The cancellation of claims 3-5, 9, 11-12, 15, 18, 20-21, 25-34, 60, 67, 69-71, 74, 76-78, 80, 88, 90, and 92-96 render the § 103 rejections thereof moot.

None of the cited documents discloses or suggests any of SEQ ID NO:9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301, which are synthetic sequences with at least 3-fold fewer of a combination of different mammalian transcription factor binding sequences, and optionally a reduced number of intron splice sites, poly(A) addition sites or prokaryotic 5' noncoding regulatory sequences relative to a corresponding parent nucleic acid sequence, e.g., one encoding YG#81-6G01, a parent sequence that shares less than 80% nucleic acid sequence identity to those synthetic sequences. Accordingly, none of the cited documents discloses or suggests sequences that are structurally related to any of SEQ ID NO:9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301, e.g., sequences that have at least 95% nucleic acid sequence identity to those sequences or that hybridize to those sequences or sequences complementary thereto under high stringency conditions, as recited in claims 1 and 47. Applicant is unable to find in the Office Action a proper reason that remedies this deficiency.

Moreover, the cited documents do not provide a reasonable expectation of success for obtaining any of SEQ ID NO:9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301. That is because the cited documents relate to modified sequences obtained by selecting certain criteria for inclusion and/or exclusion to remove or replace particular features which differ from the criteria for inclusion and/or exclusion to remove or replace particular features disclosed in the specification.

Further, the modified sequences disclosed in the cited documents differ from the recited sequences by the extent of the alterations, e.g., the claimed synthetic sequences have at least 3-fold fewer of a combination of different mammalian transcription factor binding sequences, and optionally a reduced number of intron splice sites, poly(A) addition sites or prokaryotic 5' noncoding regulatory sequences relative to a corresponding wild type nucleic acid sequence. In addition, none of the cited documents provides a reasonable expectation that such a large number of transcription regulatory sequences could be removed, thereby enhancing the genetic neutrality of the resulting sequences.

Therefore, withdrawal of the § 103 rejections is respectfully requested.

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.116 - EXPEDITED PROCEDURE

Serial Number: 09/645,706

Filing Date: August 24, 2000

Title: SYNTHETIC NUCLEIC ACID MOLECULE COMPOSITIONS AND METHODS OF PREPARATION

Page 9

Dkt: 341.005US1

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6959 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

July 31, 2009

By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 31, 2009.

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